



# UNITED STATES PATENT AND TRADEMARK OFFICE

*apw*  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/840,290

04/24/2001

Tae-kyoung Kang

1568.1012

4369

7590

05/20/2004

McGUIRE WOODS LLP  
1750 TYSONS BOULEVARD  
SUITE 1800  
McLEAN, VA 22102-4215

EXAMINER

ROY, SIKHA

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Applicati n N .

09/840,290

Applicant(s)

KANG ET AL.

Examiner

Sikha Roy

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the corresp ndence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-28 and 37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 4-13 and 15-27 is/are allowed.
- 6) ☒ Claim(s) 2, 3, 28 and 37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

The Amendment, filed on March 4, 2004 has been entered and overcomes the rejection of claims 1 and 17 under 35 U.S.C. § 103(a).

The Amended title, filed on March 4, 2004 is approved by the Examiner.

### ***Claim Objections***

In claim 2 the non-light emitting zone filling portion being formed integrally with the outermost partition it is not clear how the outermost surface of the outermost partition can be distinguished from the filling portion and hence the limitation reciting 'along a width of the non-light emitting zone portion from an outermost surface of the outermost partition' is indefinite.

Regarding claim 3 the limitation of 'the zone between the outermost partition and sealing material is substantially completely filled' is indefinite. The non-light emitting zone is either completely filled or not completely (i.e. partially) filled. The specification (page 9 lines 1,2) discloses that the filling portion completely fills the space.

Appropriate corrections are required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2879

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 28 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 05135702 to Murata and further in view of U.S. Patent 5,754,003 to Murai et al.

Referring to claim 2 Murata discloses (Figs. 1 and 8) a plasma display panel comprising a front glass substrate 3 and a rear glass substrate 1 coupled to each other by a sealing material 10 coated at edges of the front and rear glass substrates, first and second electrodes 4 and 2 respectively on opposing inner surfaces of front and rear glass electrodes crossing each other, partitions 5 formed on the rear glass substrate extending lengthwise in a first direction defining a space defined by first and second electrodes, a non-light emitting zone filling portion filling a non-light emitting zone 6 between the outermost of the partition and the sealing material, the non-light emitting zone filling portion comprising dummy barrier ribs having the same material used for the partitions 5. Additionally Murata discloses (third embodiment, Fig. 8) that the outermost partition and the non-light emitting zone filling portion 6 are substantially formed integrally.

Claim 2 differs from Murata in that Murata does not exemplify the dielectric layers on the opposing inner surfaces of the front and rear glass substrates covering the electrodes, one surface of the non-light emitting zone in contact with the dielectric layer on the front or rear glass substrate and red, green and blue fluorescent substances coated between adjacent partitions.

Art Unit: 2879

Murai in the analogous art of plasma display device discloses (Fig. 1 column 9 lines 27-50, column 10 lines 5-15,34-40) front plate 12 covered by a dielectric layer 22 and the backplate 14 covered by dielectric layer 26. The use of dielectric layers covering the electrodes is well known in the art for storing the electric charge resulting from the discharge and thus protecting the electrodes from the electric discharges generated in the plasma cell. Murai also discloses which is well within the teaching of art that red, green and blue fluorescent materials coated between the walls of the partitions providing three colored cells for picture elements.

Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to include the dielectric layers covering the electrodes and in contact with the partitions and the non-light emitting zone filling portion and red green and blue fluorescent material on the walls of the partitions of display panel of Murata as disclosed by Murai for storing the electric charge and protecting the electrodes from discharge and providing colored picture elements in the display.

Regarding claim 3 Fig. 7 of Murata discloses the non-light emitting zone filling portion (false barrier ribs) surrounds the barrier ribs 5 and fills the space between the outermost partition and the sealing materials at the end.

Regarding claim 28 Murata and Murai disclose inert gas disposed within the display panel. From the Fig. 8 (embodiment 3) and Fig. 7 of Murata, the non-light emitting zone filling portion is integrally formed with the outermost partition, fills the space between the outermost partition and the seal and completely covers surface of

Art Unit: 2879

the first and second dielectric layers. Therefore it would have been obvious to specify that the inert gas is disposed in the space within the panel except the space defined between the outermost partition and the seal which is completely filled by the non-light emitting zone filling.

Regarding the limitation reciting 'to prevent a discharge of first electrodes in the space between the outermost partition and the seal' it is elementary that mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to distinguish over the prior art. Additionally, where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on. Thus, the functional limitation of preventing discharge of the first electrodes in the space between the outermost partition and the seal is taught by Murata under the principles of functional inherency.

Claim 37 essentially recites the same limitations as of claim 28 and hence is rejected for the same reason.

#### ***Allowable Subject Matter***

Claims 1, 17 and 18 are allowed over the prior art of record.

The following is an examiner's statement of reasons for allowance:

Regarding claims 1 and 17 the prior art of record does not teach or suggest a plasma display panel with all the limitations as claimed and particularly the limitation comprising one surface of the non-light emitting zone filling portion is in direct contact with the outermost surface of the outermost partition along the length of the zone.

Claim 18 is allowed because of its dependency status from allowed claim 17.

The reasons for allowing claims 4-13,15,16,19-27 have already been cited in the previous office action.

### ***Response to Arguments***

Applicant's arguments, filed March 4, 2004 with respect to claims 1 and 17 have been fully considered and are persuasive. The rejection of claims 1 and 17 has been withdrawn.

Applicant's arguments regarding claims 2,3,28 and 37 have been fully considered but they are not persuasive.

In response to applicant's argument that JP'702 to Murata and Murai fail to disclose or suggest the combination features recited in claims 2, 3 the Examiner respectfully disagrees. In embodiment 3 (Fig. 8) Murata does indeed disclose a non-light emitting zone filling portion 6 between the outermost partition and the seal 10 wherein the non-light emitting zone filling portion is integrally formed with the outermost partition. Combining teachings of Murata and Murai the top surface of the non-light emitting zone filling portion is in contact with the dielectric layer on the front glass substrate along the width of the non-light emitting zone.

Art Unit: 2879

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Sikha Roy  
Patent Examiner  
Art Unit 2879



**VIP PATEL  
PRIMARY EXAMINER**